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<110> Agarwal, Pankaj
Lee, Judithann M.
Smith, Randall F.
White, John R.

<120> NOVEL COMPOUNDS

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<150> 60/213,161

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<150> 60/213,156

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<150> 10/312,088

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<212> DNA

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cgaaataagc ttccattttt gcctagttaa tttagaaatt tatcccttga atacttggat 900
ctttttggaa atacttttga acaaccaaaaa gtccttccag taataaaagct gcaagcacca 960
ttaactttat tggaatcttc tgcacgaacc atattacata ataggaatag gattccatat 1020
ggctctcata tcattccatt ccattctctgc caagatttgg ataccgcaaa aatttgtgtt 1080
tgtggaagat tctgtctgaa ctctttcatt caaggaacta ctaccatgaa tctgcattct 1140
gttgcccaca ctgtggtctt agtagataat ttgggtggta ctgaagcacc tattatctct 1200
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<210> 23

<211> 461

<212> PRT

<213> Homo sapiens

<400> 23

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Met Leu Gly Ile Trp Ile Val Ala Phe Leu Phe Phe Gly Thr Ser Arg
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Gly Lys Glu Val Cys Tyr Glu Arg Leu Gly Cys Phe Lys Asp Gly Leu
 20           25           30
Pro Trp Thr Arg Thr Phe Ser Thr Glu Leu Val Gly Leu Pro Trp Ser
 35           40           45
Pro Glu Lys Ile Asn Thr Arg Phe Leu Leu Tyr Thr Ile His Asn Pro
 50           55           60
Asn Ala Tyr Gln Glu Ile Ser Ala Val Asn Ser Ser Thr Ile Gln Ala
 65           70           75           80
Ser Tyr Phe Gly Thr Asp Lys Ile Thr Arg Ile Asn Ile Ala Gly Trp
 85           90           95
Lys Thr Asp Gly Lys Trp Gln Arg Asp Met Cys Asn Val Leu Leu Gln
100          105          110
Leu Glu Asp Ile Asn Cys Ile Asn Leu Asp Trp Ile Asn Gly Ser Arg
115          120          125
Glu Tyr Ile His Ala Val Asn Asn Leu Arg Val Val Gly Ala Glu Val
130          135          140
Ala Tyr Phe Ile Asp Val Leu Met Lys Lys Phe Glu Tyr Ser Pro Ser
145          150          155          160
Lys Val His Leu Ile Gly His Ser Leu Gly Ala His Leu Ala Gly Glu
165          170          175
Ala Gly Ser Arg Ile Pro Gly Leu Gly Arg Ile Thr Gly Leu Asp Pro
180          185          190
Ala Gly Pro Phe Phe His Asn Thr Pro Lys Glu Val Arg Leu Asp Pro
195          200          205
Ser Asp Ala Asn Phe Val Asp Val Ile His Thr Asn Ala Ala Arg Ile
210          215          220
Leu Phe Glu Leu Gly Val Gly Thr Ile Asp Ala Cys Gly His Leu Asp
225          230          235          240
Phe Tyr Pro Asn Gly Gly Lys His Met Pro Gly Cys Glu Asp Leu Ile
245          250          255
Thr Pro Leu Leu Lys Phe Asn Phe Asn Ala Tyr Lys Lys Glu Met Ala
260          265          270
Ser Phe Phe Asp Cys Asn His Ala Arg Ser Tyr Gln Phe Tyr Ala Glu
275          280          285
Ser Ile Leu Asn Pro Asp Ala Phe Ile Ala Tyr Pro Cys Arg Ser Tyr
290          295          300
Thr Ser Phe Lys Ala Gly Thr Cys Val Gly Cys Ala Asp Leu Leu His
305          310          315          320

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Arg	Ile	Asp	Lys	Ile	Gly	Ser	His	Thr	Ser	His	Val	Phe	Leu	Thr	Leu	
				325					330					335		
Ser	Leu	Pro	Phe	Leu	Leu	Val	Ser	Leu	Tyr	Leu	Gly	Trp	Arg	His	Lys	
			340					345					350			
Leu	Ser	Val	Lys	Leu	Ser	Gly	Ser	Glu	Val	Thr	Gln	Gly	Thr	Val	Phe	
			355				360					365				
Leu	Arg	Val	Gly	Gly	Ala	Val	Arg	Lys	Thr	Gly	Glu	Phe	Ala	Ile	Val	
	370					375					380					
Ser	Gly	Lys	Leu	Glu	Pro	Gly	Met	Thr	Tyr	Thr	Lys	Leu	Ile	Asp	Ala	
385					390					395					400	
Asp	Val	Asn	Val	Gly	Asn	Ile	Thr	Ser	Val	Gln	Phe	Ile	Trp	Lys	Lys	
				405					410					415		
His	Leu	Phe	Glu	Asp	Ser	Gln	Asn	Lys	Leu	Gly	Ala	Glu	Met	Val	Ile	
			420					425					430			
Asn	Thr	Ser	Gly	Lys	Tyr	Gly	Tyr	Lys	Ser	Thr	Phe	Cys	Ser	Gln	Asp	
		435					440					445				
Ile	Met	Gly	Pro	Asn	Ile	Leu	Gln	Asn	Leu	Lys	Pro	Cys				
	450					455					460					

<210> 24
 <211> 308
 <212> PRT
 <213> Homo sapiens

<400> 24

Met	Pro	Phe	Leu	Gln	Leu	Lys	Gly	Arg	Ala	Thr	Pro	Pro	Ser	Trp	Arg	
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His	Asp	Ser	Arg	Ser	Leu	Val	His	Leu	Leu	Asp	Gly	Lys	Glu	Gly	Val	
			20					25					30			
Trp	Asp	Thr	Thr	Gly	Tyr	Ala	Leu	Gly	Ser	Arg	Glu	Ser	Leu	Asn	Pro	
		35				40						45				
Asp	Met	Gly	Ile	Gly	Asp	Pro	His	Gly	His	Ser	Thr	Val	His	Thr	Arg	
	50				55					60						
Glu	Ala	Gly	Thr	Ala	Cys	Pro	Leu	Gln	Leu	Leu	Gly	Ala	Arg	Glu	Ala	
65					70				75						80	
Ser	Leu	Leu	Ala	Cys	Gly	Ile	Cys	Gln	Ala	Ser	Gly	Gln	Ile	Phe	Ile	
				85				90						95		
Thr	Gln	Thr	Leu	Gly	Ile	Lys	Gly	Tyr	Arg	Thr	Val	Val	Ala	Leu	Asp	
			100					105					110			
Lys	Val	Pro	Glu	Asp	Val	Gln	Glu	Tyr	Ser	Trp	Tyr	Trp	Gly	Ala	Asn	
		115				120						125				
Asp	Ser	Ala	Gly	Asn	Met	Ile	Ser	His	Lys	Pro	Pro	Ser	Ala	Gln		
	130				135					140						
Gln	Pro	Gly	Pro	Met	Tyr	Thr	Gly	Arg	Glu	Arg	Val	Asn	Arg	Glu	Gly	
145					150				155						160	
Ser	Leu	Leu	Ile	Arg	Pro	Thr	Ala	Leu	Asn	Asp	Thr	Gly	Asn	Tyr	Thr	
				165				170						175		
Val	Arg	Val	Val	Ala	Gly	Asn	Glu	Thr	Gln	Arg	Ala	Thr	Gly	Trp	Leu	
			180					185					190			
Glu	Val	Leu	Asp	Gly	Pro	Asp	Tyr	Val	Leu	Leu	Arg	Ser	Asn	Pro	Asp	
		195				200						205				
Asp	Phe	Asn	Gly	Ile	Val	Thr	Ala	Glu	Ile	Gly	Ser	Gln	Val	Glu	Met	
	210					215					220					
Glu	Cys	Ile	Cys	Tyr	Ser	Phe	Leu	Asp	Leu	Lys	Tyr	His	Trp	Ile	His	
225					230					235					240	

Asn	Gly	Ser	Leu	Leu	Asn	Phe	Ser	Asp	Ala	Lys	Met	Asn	Leu	Ser	Ser	
				245					250					255		
Leu	Ala	Trp	Glu	Gln	Met	Gly	Arg	Tyr	Arg	Cys	Thr	Val	Glu	Asn	Pro	
			260					265					270			
Val	Thr	Gln	Leu	Ile	Met	Tyr	Met	Asp	Val	Arg	Ile	Gln	Ala	Pro	His	
		275					280					285				
Glu	Cys	Ser	Ser	Ser	Pro	Pro	Gly	Ser	Cys	Phe	Ala	His	Leu	Pro	Ala	
	290					295					300					
Ser	Met	Pro	Cys													
305																

<210> 25
 <211> 457
 <212> PRT
 <213> Homo sapiens

<400> 25

Met	Asp	Leu	Ser	Arg	Pro	Arg	Trp	Ser	Leu	Trp	Arg	Arg	Val	Phe	Leu	
1				5					10					15		
Met	Ala	Ser	Leu	Ala	Cys	Gly	Ile	Cys	Gln	Ala	Ser	Gly	Gln	Ile		
			20				25					30				
Phe	Ile	Thr	Gln	Thr	Leu	Gly	Ile	Lys	Gly	Tyr	Arg	Thr	Val	Val	Ala	
		35				40					45					
Leu	Asp	Lys	Val	Pro	Glu	Asp	Val	Gln	Glu	Tyr	Ser	Trp	Tyr	Trp	Gly	
	50					55				60						
Ala	Asn	Asp	Ser	Ala	Gly	Asn	Met	Ile	Ile	Ser	His	Lys	Pro	Pro	Ser	
65				70					75					80		
Ala	Gln	Gln	Pro	Gly	Pro	Met	Tyr	Thr	Gly	Arg	Glu	Arg	Val	Asn	Arg	
				85					90					95		
Glu	Gly	Ser	Leu	Leu	Ile	Arg	Pro	Thr	Ala	Leu	Asn	Asp	Thr	Gly	Asn	
			100				105					110				
Tyr	Thr	Val	Arg	Val	Val	Ala	Gly	Asn	Glu	Thr	Gln	Arg	Ala	Thr	Gly	
	115					120					125					
Trp	Leu	Glu	Val	Leu	Glu	Leu	Gly	Ser	Asn	Leu	Gly	Ile	Ser	Val	Asn	
	130					135				140						
Ala	Ser	Ser	Leu	Val	Glu	Asn	Met	Asp	Ser	Val	Ala	Ala	Asp	Cys	Leu	
145				150					155					160		
Thr	Asn	Val	Thr	Asn	Ile	Thr	Trp	Tyr	Val	Asn	Asp	Val	Pro	Thr	Ser	
			165					170					175			
Ser	Ser	Asp	Arg	Met	Thr	Ile	Ser	Pro	Asp	Gly	Lys	Thr	Leu	Val	Ile	
		180						185					190			
Leu	Arg	Val	Ser	Arg	Tyr	Asp	Arg	Thr	Ile	Gln	Cys	Met	Ile	Glu	Ser	
		195				200					205					
Phe	Pro	Glu	Ile	Phe	Gln	Arg	Ser	Glu	Arg	Ile	Ser	Leu	Thr	Val	Ala	
	210				215						220					
Tyr	Gly	Pro	Asp	Tyr	Val	Leu	Leu	Arg	Ser	Asn	Pro	Asp	Asp	Phe	Asn	
225					230					235				240		
Gly	Ile	Val	Thr	Ala	Glu	Ile	Gly	Ser	Gln	Val	Glu	Met	Glu	Cys	Ile	
				245					250					255		
Cys	Tyr	Ser	Phe	Leu	Asp	Leu	Lys	Tyr	His	Trp	Ile	His	Asn	Gly	Ser	
		260						265					270			
Leu	Leu	Asn	Phe	Ser	Asp	Ala	Lys	Met	Asn	Leu	Ser	Ser	Leu	Ala	Trp	
		275					280					285				
Glu	Gln	Met	Gly	Arg	Tyr	Arg	Cys	Thr	Val	Glu	Asn	Pro	Val	Thr	Gln	
	290					295					300					

Leu	Ile	Met	Tyr	Met	Asp	Val	Arg	Ile	Gln	Ala	Pro	His	Glu	Cys	Pro
305					310					315					320
Leu	Pro	Ser	Gly	Ile	Leu	Pro	Val	Val	His	Arg	Asp	Phe	Ser	Ile	Ser
			325						330					335	
Gly	Ser	Met	Val	Met	Phe	Leu	Ile	Met	Leu	Thr	Val	Leu	Gly	Gly	Val
			340						345				350		
Tyr	Ile	Cys	Gly	Val	Leu	Ile	His	Ala	Leu	Ile	Asn	His	Tyr	Ser	Ile
		355					360					365			
Arg	Cys	Pro	His	Cys	Ser	Gly	Thr	Arg	Val	Gly	Cys	Trp	Leu	Gly	Ala
	370					375					380				
Gly	Thr	Gln	Glu	Pro	Ala	Leu	Pro	Pro	Glu	Gly	Lys	Gln	Ser	Gln	Lys
385					390					395					400
Gly	Arg	Asp	Lys	Pro	Gly	Thr	Arg	Leu	Ser	Gly	Ile	Ile	Trp	Gly	Arg
			405						410					415	
Gln	Ile	Ser	Pro	Gln	Asp	Leu	Lys	Leu	Met	Gly	Ala	Arg	Glu	Gly	Leu
			420					425					430		
Glu	Ser	Ala	Met	Val	Leu	Asn	Ser	Cys	Gly	Val	Ser	Ser	Ser	Asn	Phe
		435					440					445			
Pro	Ser	Leu	Cys	Val	Tyr	Lys	Gly	Tyr							
	450					455									

<210> 26
 <211> 704
 <212> PRT
 <213> Homo sapiens

<400> 26

Met	Leu	His	Asp	Gly	Leu	Thr	Ala	Pro	Asp	Gly	Cys	Gly	Ile	Tyr	Ser
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Leu	Thr	Gly	Arg	Glu	Val	Leu	Thr	Pro	Phe	Pro	Gly	Leu	Gly	Thr	Ala
			20					25					30		
Ala	Ala	Pro	Ala	Gln	Gly	Gly	Ala	His	Leu	Lys	Gln	Cys	Asp	Leu	Leu
		35				40						45			
Lys	Leu	Ser	Arg	Arg	Gln	Lys	Gln	Leu	Cys	Arg	Arg	Glu	Pro	Gly	Leu
	50					55				60					
Ala	Glu	Thr	Leu	Arg	Asp	Ala	Ala	His	Leu	Gly	Leu	Leu	Glu	Cys	Gln
65					70					75					80
Phe	Gln	Phe	Arg	His	Glu	Arg	Trp	Asn	Cys	Ser	Leu	Glu	Gly	Arg	Met
			85					90						95	
Gly	Leu	Leu	Lys	Arg	Gly	Phe	Lys	Glu	Thr	Ala	Phe	Leu	Tyr	Ala	Val
			100					105					110		
Ser	Ser	Ala	Ala	Leu	Thr	His	Thr	Leu	Ala	Arg	Ala	Cys	Ser	Ala	Gly
		115					120					125			
Arg	Met	Glu	Arg	Cys	Thr	Cys	Asp	Asp	Ser	Pro	Gly	Leu	Glu	Ser	Arg
	130					135					140				
Gln	Ala	Trp	Gln	Trp	Gly	Val	Cys	Gly	Asp	Asn	Leu	Lys	Tyr	Ser	Thr
145					150					155					160
Lys	Phe	Leu	Ser	Asn	Phe	Leu	Gly	Ser	Lys	Arg	Gly	Asn	Lys	Asp	Leu
				165					170					175	
Arg	Ala	Arg	Ala	Asp	Ala	His	Asn	Thr	His	Val	Gly	Ile	Lys	Ala	Val
			180					185					190		
Lys	Ser	Gly	Leu	Arg	Thr	Thr	Cys	Lys	Cys	His	Gly	Val	Ser	Gly	Ser
		195					200					205			
Cys	Ala	Val	Arg	Thr	Cys	Trp	Lys	Gln	Leu	Ser	Pro	Phe	Arg	Glu	Thr
	210					215					220				

Gly	Gln	Val	Leu	Lys	Leu	Arg	Tyr	Asp	Ser	Ala	Val	Lys	Val	Ser	Ser	
225					230					235					240	
Ala	Thr	Asn	Glu	Ala	Leu	Gly	Arg	Leu	Glu	Leu	Trp	Ala	Pro	Ala	Arg	
				245					250					255		
Gln	Gly	Ser	Leu	Thr	Lys	Gly	Leu	Ala	Pro	Arg	Ser	Gly	Asp	Leu	Val	
			260					265					270			
Tyr	Met	Glu	Asp	Ser	Pro	Ser	Phe	Cys	Arg	Pro	Ser	Lys	Tyr	Ser	Pro	
		275					280					285				
Gly	Thr	Ala	Gly	Arg	Val	Cys	Ser	Arg	Glu	Ala	Ser	Cys	Ser	Ser	Leu	
	290					295					300					
Cys	Cys	Gly	Arg	Gly	Tyr	Asp	Thr	Gln	Ser	Arg	Leu	Val	Ala	Phe	Ser	
305					310					315					320	
Cys	His	Cys	Gln	Val	Gln	Trp	Cys	Cys	Tyr	Val	Glu	Cys	Gln	Gln	Cys	
			325						330					335		
Val	Gln	Glu	Glu	Leu	Val	Tyr	Thr	Cys	Lys	His	Ala	Met	Gly	Pro	Val	
			340					345					350			
Gly	Phe	Pro	Arg	Gln	Cys	Gln	Gly	Ala	Phe	Phe	Glu	Ser	Ser	Pro	Gly	
		355					360					365				
Gln	Thr	Arg	Ala	Arg	Leu	Thr	Gly	Arg	Glu	Val	Leu	Thr	Pro	Phe	Pro	
	370					375					380					
Gly	Leu	Gly	Thr	Ala	Ala	Pro	Ala	Gln	Gly	Gly	Ala	His	Leu	Lys		
385					390				395					400		
Gln	Cys	Asp	Leu	Leu	Lys	Leu	Ser	Arg	Arg	Gln	Lys	Gln	Leu	Cys	Arg	
			405					410						415		
Arg	Glu	Pro	Gly	Leu	Ala	Glu	Thr	Leu	Arg	Asp	Ala	Ala	His	Leu	Gly	
			420					425					430			
Leu	Leu	Glu	Cys	Gln	Phe	Gln	Phe	Arg	His	Glu	Arg	Trp	Asn	Cys	Ser	
		435					440					445				
Leu	Glu	Gly	Arg	Met	Gly	Leu	Leu	Lys	Arg	Gly	Phe	Lys	Glu	Thr	Ala	
	450					455					460					
Phe	Leu	Tyr	Ala	Val	Ser	Ser	Ala	Ala	Leu	Thr	His	Thr	Leu	Ala	Arg	
465					470					475					480	
Ala	Cys	Ser	Ala	Gly	Arg	Met	Glu	Arg	Cys	Thr	Cys	Asp	Asp	Ser	Pro	
				485					490					495		
Gly	Leu	Glu	Ser	Arg	Gln	Ala	Trp	Gln	Trp	Gly	Val	Cys	Gly	Asp	Asn	
			500					505					510			
Leu	Lys	Tyr	Ser	Thr	Lys	Phe	Leu	Ser	Asn	Phe	Leu	Gly	Ser	Lys	Arg	
		515					520					525				
Gly	Asn	Lys	Asp	Leu	Arg	Ala	Arg	Ala	Asp	Ala	His	Asn	Thr	His	Val	
	530					535					540					
Gly	Ile	Lys	Ala	Val	Lys	Ser	Gly	Leu	Arg	Thr	Thr	Cys	Lys	Cys	His	
545					550				555					560		
Gly	Val	Ser	Gly	Ser	Cys	Ala	Val	Arg	Thr	Cys	Trp	Lys	Gln	Leu	Ser	
				565					570					575		
Pro	Phe	Arg	Glu	Thr	Gly	Gln	Val	Leu	Lys	Leu	Arg	Tyr	Asp	Ser	Ala	
			580					585					590			
Val	Lys	Val	Ser	Ser	Ala	Thr	Asn	Glu	Ala	Leu	Gly	Arg	Leu	Glu	Leu	
		595					600					605				
Trp	Ala	Pro	Ala	Arg	Gln	Gly	Ser	Leu	Thr	Lys	Gly	Leu	Ala	Pro	Arg	
	610					615					620					
Ser	Gly	Asp	Leu	Val	Tyr	Met	Glu	Asp	Ser	Pro	Ser	Phe	Cys	Arg	Pro	
625					630					635					640	
Ser	Lys	Tyr	Ser	Pro	Gly	Thr	Ala	Gly	Arg	Val	Cys	Ser	Arg	Glu	Ala	
				645					650					655		
Ser	Cys	Ser	Ser	Leu	Cys	Cys	Gly	Arg	Gly	Tyr	Asp	Thr	Gln	Ser	Arg	
			660					665					670			

Leu	Val	Ala	Phe	Ser	Cys	His	Cys	Gln	Val	Gln	Trp	Cys	Cys	Tyr	Val
		675					680					685			
Glu	Cys	Gln	Gln	Cys	Val	Gln	Glu	Glu	Leu	Val	Tyr	Thr	Cys	Lys	His
	690					695					700				

<210> 27
 <211> 361
 <212> PRT
 <213> Homo sapiens

<400> 27

Met	Lys	Pro	Leu	Arg	Arg	Pro	Leu	Pro	Phe	Ile	Cys	Pro	Ser	Pro	Pro
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Ser	Pro	Arg	Leu	Thr	Cys	Leu	Pro	Pro	Leu	Ala	Leu	Ser	Ser	Leu	Thr
			20					25					30		
Gly	Arg	Glu	Val	Leu	Thr	Pro	Phe	Pro	Gly	Leu	Gly	Thr	Ala	Ala	Ala
		35					40					45			
Pro	Ala	Gln	Gly	Gly	Ala	His	Leu	Lys	Gln	Cys	Asp	Leu	Leu	Lys	Leu
	50					55					60				
Ser	Arg	Arg	Gln	Lys	Gln	Leu	Cys	Arg	Arg	Glu	Pro	Gly	Leu	Ala	Glu
65					70					75					80
Thr	Leu	Arg	Asp	Ala	Ala	His	Leu	Gly	Leu	Leu	Glu	Cys	Gln	Phe	Gln
				85					90					95	
Phe	Arg	His	Glu	Arg	Trp	Asn	Cys	Ser	Leu	Glu	Gly	Arg	Met	Gly	Leu
			100					105					110		
Leu	Lys	Arg	Gly	Phe	Lys	Glu	Thr	Ala	Phe	Leu	Tyr	Ala	Val	Ser	Ser
		115					120					125			
Ala	Ala	Leu	Thr	His	Thr	Leu	Ala	Arg	Ala	Cys	Ser	Ala	Gly	Arg	Met
	130					135					140				
Glu	Arg	Cys	Thr	Cys	Asp	Asp	Ser	Pro	Gly	Leu	Glu	Ser	Arg	Gln	Ala
145					150					155					160
Trp	Gln	Trp	Gly	Val	Cys	Gly	Asp	Asn	Leu	Lys	Tyr	Ser	Thr	Lys	Phe
			165						170					175	
Leu	Ser	Asn	Phe	Leu	Gly	Ser	Lys	Arg	Gly	Asn	Lys	Asp	Leu	Arg	Ala
		180						185					190		
Arg	Ala	Asp	Ala	His	Asn	Thr	His	Val	Gly	Ile	Lys	Ala	Val	Lys	Ser
		195					200					205			
Gly	Leu	Arg	Thr	Thr	Cys	Lys	Cys	His	Gly	Val	Ser	Gly	Ser	Cys	Ala
	210					215					220				
Val	Arg	Thr	Cys	Trp	Lys	Gln	Leu	Ser	Pro	Phe	Arg	Glu	Thr	Gly	Gln
225					230					235					240
Val	Leu	Lys	Leu	Arg	Tyr	Asp	Ser	Ala	Val	Lys	Val	Ser	Ser	Ala	Thr
			245						250					255	
Asn	Glu	Ala	Leu	Gly	Arg	Leu	Glu	Leu	Trp	Ala	Pro	Ala	Arg	Gln	Gly
			260					265					270		
Ser	Leu	Thr	Lys	Gly	Leu	Ala	Pro	Arg	Ser	Gly	Asp	Leu	Val	Tyr	Met
		275					280					285			
Glu	Asp	Ser	Pro	Ser	Phe	Cys	Arg	Pro	Ser	Lys	Tyr	Ser	Pro	Gly	Thr
	290					295					300				
Ala	Gly	Arg	Val	Cys	Ser	Arg	Glu	Ala	Ser	Cys	Ser	Ser	Leu	Cys	Cys
305					310					315					320
Gly	Arg	Gly	Tyr	Asp	Thr	Gln	Ser	Arg	Leu	Val	Ala	Phe	Ser	Cys	His
				325					330					335	
Cys	Gln	Val	Gln	Trp	Cys	Cys	Tyr	Val	Glu	Cys	Gln	Gln	Cys	Val	Gln
			340					345					350		

Glu Glu Leu Val Tyr Thr Cys Lys His
 355 360

<210> 28
 <211> 365
 <212> PRT
 <213> Homo sapiens

<400> 28
 Met Trp Leu Leu Leu Thr Thr Thr Cys Leu Ile Cys Gly Thr Leu Asn
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 Met Asn Thr Ser Glu Ile Ile Ile Tyr Asn Gly Tyr Pro Ser Glu Glu
 35 40 45
 Tyr Glu Val Thr Thr Glu Asp Gly Tyr Ile Leu Leu Val Asn Arg Ile
 50 55 60
 Pro Tyr Gly Arg Thr His Ala Arg Ser Thr Ala Asp Ala Gly Tyr Asp
 65 70 75 80
 Val Trp Met Gly Asn Ser Arg Gly Asn Thr Trp Ser Arg Arg His Lys
 85 90 95
 Thr Leu Ser Glu Thr Asp Glu Lys Phe Trp Ala Phe Ser Phe Asp Glu
 100 105 110
 Met Ala Lys Tyr Asp Leu Pro Gly Val Ile Asp Phe Ile Val Asn Lys
 115 120 125
 Thr Gly Gln Glu Lys Leu Tyr Phe Ile Gly His Ser Leu Gly Thr Thr
 130 135 140
 Ile Gly Phe Val Ala Phe Ser Thr Met Pro Glu Leu Ala Gln Arg Ile
 145 150 155 160
 Lys Met Asn Phe Ala Leu Gly Pro Thr Ile Ser Phe Lys Tyr Pro Thr
 165 170 175
 Gly Ile Phe Thr Arg Phe Phe Leu Leu Pro Asn Ser Ile Ile Lys Ala
 180 185 190
 Val Phe Gly Thr Lys Gly Phe Phe Leu Glu Asp Lys Lys Thr Lys Ile
 195 200 205
 Ala Ser Thr Lys Ile Cys Asn Asn Lys Ile Leu Trp Leu Ile Cys Ser
 210 215 220
 Glu Phe Met Ser Leu Trp Ala Gly Ser Asn Lys Lys Asn Met Asn Gln
 225 230 235 240
 Ser Arg Met Asp Val Tyr Met Ser His Ala Pro Thr Gly Ser Ser Val
 245 250 255
 His Asn Ile Leu His Ile Lys Gln Leu Tyr His Ser Asp Glu Phe Arg
 260 265 270
 Ala Tyr Asp Trp Gly Asn Asp Ala Asp Asn Met Lys His Tyr Asn Gln
 275 280 285
 Ser His Pro Pro Ile Tyr Asp Leu Thr Ala Met Lys Val Pro Thr Ala
 290 295 300
 Ile Trp Ala Gly Gly His Asp Val Leu Val Thr Pro Gln Asp Val Ala
 305 310 315 320
 Arg Ile Leu Pro Gln Ile Lys Ser Leu His Tyr Phe Lys Leu Leu Pro
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 Met Tyr Ser Glu Ile Ile Ala Leu Met Lys Ala Tyr Ser
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 <212> PRT
 <213> Homo sapiens

<400> 29

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Pro	His	Val	Cys	Gly	Gln	Ala	Cys	Ala	Ser	Cys	Lys	Asp	Gly	Phe	Phe
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His	Gly	Tyr	Pro	Arg	Cys	Arg	Pro	Cys	Asp	Cys	His	Glu	Ala	Gly	Thr	1570	1575	1580
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Gln	Ala	Met	Leu	Ala	Met	Asp	Thr	Asp	Glu	Thr	Ser	Lys	Lys	Ile	Ala	2625	2630	2635	2640
His	Ala	Lys	Ala	Val	Ala	Ala	Glu	Ala	Gln	Asp	Thr	Ala	Thr	Arg	Val	2645	2650	2655	
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Ala	Gly	His	Ser	Val	Ser	Thr	Leu	Glu	Lys	Thr	Leu	Pro	Gln	Leu	Leu	2690	2695	2700	
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Ala	Leu	Ser	Ala	Ser	Ile	Gly	Arg	Val	Arg	Glu	Leu	Ile	Ala	Gln	Ala	2725	2730	2735	
Arg	Gly	Ala	Ala	Ser	Lys	Val	Lys	Val	Pro	Met	Lys	Phe	Asn	Gly	Arg	2740	2745	2750	
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Gln	Gly	Thr	Glu	Asp	Arg	Phe	Val	Met	Tyr	Met	Gly	Ser	Arg	Gln	Ala	2785	2790	2795	2800
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Phe	His	Gly	His	Gly	Phe	Leu	Arg	Leu	Ala	Leu	Ser	Asn	Val	Ala	Pro		
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Ser	Ala	Leu	Leu	Tyr	Tyr	Arg	Ala	Ser	Pro	Asp	Gly	Leu	Cys	Gln	Val		
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Ser	Leu	Gln	Gln	Gly	Arg	Val	Ser	Leu	Gln	Leu	Leu	Arg	Thr	Glu	Val		
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Phe	His	Leu	Gly	Gln	Ala	Arg	Thr	Pro	Pro	Tyr	Leu	Gln	Leu	Gln	Val	
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 <213> Homo sapiens

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Tyr	Phe	Asn	Leu	Ala	Glu	Gly	Ala	Arg	Ile	Ala	Ala	Ser	Ala	Thr	Cys	
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Gly	Glu	Glu	Ala	Pro	Ala	Arg	Gly	Ser	Pro	Arg	Pro	Thr	Glu	Asp	Leu	
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Gln	Ser	Pro	Pro	Leu	Ser	Arg	Gly	Leu	Glu	Tyr	Asn	Glu	Val	Asn	Val	
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Thr	Leu	Asp	Leu	Gly	Gln	Val	Phe	His	Val	Ala	Tyr	Val	Leu	Ile	Lys	
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Phe	Ala	Asn	Ser	Pro	Arg	Pro	Asp	Leu	Trp	Val	Leu	Glu	Arg	Ser	Met	
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Asp	Phe	Gly	Arg	Thr	Tyr	Gln	Pro	Trp	Gln	Phe	Phe	Ala	Ser	Ser	Lys	
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Arg	Asp	Cys	Leu	Glu	Arg	Phe	Gly	Pro	Gln	Thr	Leu	Glu	Arg	Ile	Thr	195	200	205
Arg	Asp	Asp	Ala	Ala	Ile	Cys	Thr	Thr	Glu	Tyr	Ser	Arg	Ile	Val	Pro	210	215	220
Leu	Glu	Asn	Gly	Glu	Ile	Val	Val	Ser	Leu	Val	Asn	Gly	Arg	Pro	Gly	225	230	235
Ala	Met	Asn	Phe	Ser	Tyr	Ser	Pro	Leu	Leu	Arg	Glu	Phe	Thr	Lys	Ala	245	250	255
Thr	Asn	Val	Arg	Leu	Arg	Phe	Leu	Arg	Thr	Asn	Thr	Leu	Leu	Gly	His	260	265	270
Leu	Met	Gly	Lys	Ala	Leu	Arg	Asp	Pro	Thr	Val	Thr	Arg	Arg	Tyr	Tyr	275	280	285
Tyr	Ser	Ile	Lys	Asp	Ile	Ser	Ile	Gly	Gly	Arg	Cys	Val	Cys	His	Gly	290	295	300
His	Ala	Asp	Ala	Cys	Asp	Ala	Lys	Asp	Pro	Thr	Asp	Pro	Phe	Arg	Leu	305	310	315
Gln	Cys	Thr	Cys	Gln	His	Asn	Thr	Cys	Gly	Gly	Thr	Cys	Asp	Arg	Cys	325	330	335
Cys	Pro	Gly	Phe	Asn	Gln	Gln	Pro	Trp	Lys	Pro	Ala	Thr	Ala	Asn	Ser	340	345	350
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Tyr	Tyr	Asp	Pro	Glu	Val	Asp	Arg	Arg	Arg	Ala	Ser	Gln	Ser	Leu	Asp	370	375	380
Gly	Thr	Tyr	Gln	Gly	Gly	Gly	Val	Cys	Ile	Asp	Cys	Gln	His	His	Thr	385	390	395
Thr	Gly	Val	Asn	Cys	Glu	Arg	Cys	Leu	Pro	Gly	Phe	Tyr	Arg	Ser	Pro	405	410	415
Asn	His	Pro	Leu	Asp	Ser	Pro	His	Val	Cys	Arg	Arg	Cys	Asn	Cys	Glu	420	425	430
Ser	Asp	Phe	Thr	Asp	Gly	Thr	Cys	Glu	Asp	Leu	Thr	Gly	Arg	Cys	Tyr	435	440	445
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Phe	Thr	Gly	Phe	Pro	Ser	Cys	Tyr	Pro	Thr	Pro	Ser	Ser	Ser	Asn	Asp	465	470	475
Thr	Arg	Glu	Gln	Val	Leu	Pro	Ala	Gly	Gln	Ile	Val	Asn	Cys	Asp	Cys	485	490	495
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Gly	Arg	Cys	Leu	Cys	Lys	Pro	Asn	Phe	Gln	Gly	Thr	His	Cys	Glu	Leu	515	520	525
Cys	Ala	Pro	Gly	Phe	Tyr	Gly	Pro	Gly	Cys	Gln	Pro	Cys	Gln	Cys	Ser	530	535	540
Ser	Pro	Gly	Val	Ala	Asp	Asp	Arg	Cys	Asp	Pro	Asp	Thr	Gly	Gln	Cys	545	550	555
Arg	Cys	Arg	Val	Gly	Phe	Glu	Gly	Ala	Thr	Cys	Asp	Arg	Cys	Ala	Pro	565	570	575
Gly	Tyr	Phe	His	Phe	Pro	Leu	Cys	Gln	Leu	Cys	Gly	Cys	Ser	Pro	Ala	580	585	590
Gly	Thr	Leu	Pro	Glu	Gly	Cys	Asp	Glu	Ala	Gly	Arg	Cys	Leu	Cys	Gln	595	600	605
Pro	Glu	Phe	Ala	Gly	Pro	His	Cys	Asp	Arg	Cys	Arg	Pro	Gly	Tyr	His	610	615	620
Gly	Phe	Pro	Asn	Cys	Gln	Ala	Cys	Thr	Cys	Asp	Pro	Arg	Gly	Ala	Leu	625	630	635

Asp	Gln	Leu	Cys	Gly	Ala	Gly	Gly	Leu	Cys	Arg	Cys	Arg	Pro	Gly	Tyr	
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Thr	Gly	Thr	Ala	Cys	Gln	Glu	Cys	Ser	Pro	Gly	Phe	His	Gly	Phe	Pro	
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Ser	Cys	Val	Pro	Cys	His	Cys	Ser	Ala	Glu	Gly	Ser	Leu	His	Ala	Ala	
		675					680					685				
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	690					695					700					
Leu	Arg	Cys	Asp	Thr	Cys	Val	Pro	Gly	Ala	Tyr	Asn	Phe	Pro	Tyr	Cys	
705					710					715					720	
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Gly	Arg	Tyr	Ala	Phe	Leu	Leu	His	Gly	Tyr	Gln	Pro	Ala	His	Pro	Thr	
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Cys	Pro	Cys	His	Ala	His	Val	Ile	Gly	Arg	Asp	Cys	Ser	Arg	Cys	Ala	
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Arg	Leu	Cys	Asp	Glu	Leu	Thr	Gly	Gln	Cys	Ile	Cys	Pro	Pro	Arg	Thr	
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Arg	Pro	Asn	Val	Thr	Gly	Arg	Arg	Cys	Asp	Thr	Cys	Ser	Pro	Gly	Phe		
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His	Gly	Tyr	Pro	Arg	Cys	Arg	Pro	Cys	Asp	Cys	His	Glu	Ala	Gly	Thr		
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Ala	Thr	Glu	Arg	Cys	Arg	Ser	Ser	Ser	Tyr	Thr	Arg	Gln	Glu	Phe	Val		
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Asp	Leu	Glu	Arg	Ala	Gly	Ala	Leu	Leu	Pro	Ala	Ile	His	Glu	Gln	Leu	
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Leu	Gly	His	Ala	Lys	Thr	Leu	Leu	Ala	Ala	Ile	Arg	Ala	Val	Asp	Arg	
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Glu	Ala	His	Ile	Gln	Ala	Ala	Gln	Ala	Met	Leu	Ala	Met	Asp	Thr	Asp		
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Gly	Tyr	Pro	Ser	Thr	Phe	Thr	Pro	Pro	Pro	Leu	Leu	Arg	Phe	Pro	Gly	2885	2890	2895
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Leu	Tyr	Asn	Phe	Glu	Arg	Thr	Phe	Gln	Leu	Asp	Thr	Ala	Val	Asp	Arg	2915	2920	2925
Pro	Cys	Ala	Arg	Ser	Lys	Ser	Thr	Gly	Asp	Pro	Trp	Leu	Thr	Asp	Gly	2930	2935	2940
Ser	Tyr	Leu	Asp	Gly	Thr	Gly	Phe	Ala	Arg	Ile	Ser	Phe	Asp	Ser	Gln	2945	2950	2955
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Ala	Val	Gln	Glu	Gly	Ser	Leu	Val	Leu	Leu	Tyr	Asp	Phe	Gly	Ala	Gly	2995	3000	3005
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Ala	Arg	Lys	Ala	Ser	Arg	Arg	Ser	Arg	Gln	Pro	Ala	Arg	His	Pro	Ala	3315	3320	3325

Cys Met Leu Pro Pro His Leu Arg Thr Thr Arg Asp Ser Tyr Gln Phe
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 Gly Gly Ser Leu Ser Ser His Leu Glu Phe Val Gly Ile Leu Ala Arg
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 His Arg Asn Trp Pro Ser Leu Ser Met His Val Leu Pro Arg Ser Ser
 3365 3370 3375
 Arg Gly Leu Leu Leu Phe Thr Ala Arg Leu Arg Pro Gly Ser Pro Ser
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<400> 32
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Ser	Gln	Lys	Val	Lys	His	Pro	Gln	Leu	Leu	Tyr	Glu	Ser	Lys	Leu	Tyr
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Thr	Ile	Leu	Gln	Gly	Gly	Val	Gly	Ile	Pro	His	Met	His	Trp	Tyr	Gly
65				70						75					80
Gln	Glu	Lys	Asp	Asn	Asn	Val	Leu	Val	Met	Asp	Leu	Leu	Gly	Pro	Ser
			85						90					95	
Leu	Glu	Asp	Leu	Phe	Asn	Phe	Cys	Ser	Arg	Arg	Phe	Thr	Met	Lys	Thr
			100					105					110		
Val	Leu	Met	Leu	Ala	Asp	Gln	Met	Ile	Ser	Arg	Ile	Glu	Tyr	Val	His
		115					120					125			
Thr	Lys	Asn	Phe	Leu	His	Arg	Asp	Ile	Lys	Pro	Asp	Asn	Phe	Leu	Met
	130					135					140				
Gly	Thr	Gly	Arg	His	Cys	Asn	Lys	Leu	Phe	Leu	Ile	Asp	Phe	Gly	Leu
145				150					155						160
Ala	Lys	Lys	Tyr	Arg	Asp	Asn	Arg	Thr	Arg	Gln	His	Ile	Pro	Tyr	Arg
			165					170					175		
Glu	Asp	Lys	His	Leu	Ile	Gly	Thr	Val	Arg	Tyr	Ala	Ser	Ile	Asn	Ala
			180					185					190		
His	Leu	Gly	Ile	Glu	Gln	Ser	Arg	Arg	Asp	Asp	Met	Glu	Ser	Leu	Gly
		195					200					205			
Tyr	Val	Phe	Met	Tyr	Phe	Asn	Arg	Thr	Ser	Leu	Pro	Trp	Gln	Gly	Leu
	210					215					220				
Arg	Ala	Met	Thr	Lys	Lys	Gln	Lys	Tyr	Glu	Lys	Ile	Ser	Glu	Lys	Lys
225					230					235					240
Met	Ser	Thr	Pro	Val	Glu	Val	Leu	Cys	Lys	Gly	Phe	Pro	Ala	Glu	Phe
			245					250						255	
Ala	Met	Tyr	Leu	Asn	Tyr	Cys	Arg	Gly	Leu	Arg	Phe	Glu	Glu	Val	Pro
			260					265					270		
Asp	Tyr	Met	Tyr	Leu	Arg	Gln	Leu	Phe	Arg	Ile	Leu	Phe	Arg	Thr	Leu
		275					280					285			
Asn	His	Gln	Tyr	Asp	Tyr	Thr	Phe	Asp	Trp	Thr	Met	Leu	Lys	Gln	Lys
	290					295					300				
Ala	Ala	Gln	Gln	Ala	Ala	Ser	Ser	Ser	Gly	Gln	Gly	Gln	Gln	Ala	Gln
305				310						315					320
Thr	Gln	Thr	Gly	Lys	Gln	Thr	Glu	Lys	Asn	Lys	Asn	Asn	Val	Lys	Asp
			325						330					335	

Asn

<210> 33
 <211> 888
 <212> PRT
 <213> Homo sapiens

<400> 33
 Met Glu Ser Leu Leu Leu Pro Val Leu Leu Leu Leu Ala Ile Leu Trp
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 Thr Gln Ala Ala Ala Leu Ile Asn Leu Lys Tyr Ser Val Glu Glu Glu
 20 25 30
 Gln Arg Ala Gly Thr Val Ile Ala Asn Val Ala Lys Asp Ala Arg Glu
 35 40 45

Ala	Gly	Phe	Ala	Leu	Asp	Pro	Arg	Gln	Ala	Ser	Ala	Phe	Arg	Val	Val
50						55				60					
Ser	Asn	Ser	Ala	Pro	His	Leu	Val	Asp	Ile	Asn	Pro	Ser	Ser	Gly	Leu
65					70					75					80
Leu	Val	Thr	Lys	Gln	Lys	Ile	Asp	Arg	Asp	Leu	Leu	Cys	Arg	Gln	Ser
			85						90					95	
Pro	Lys	Cys	Ile	Ile	Ser	Leu	Glu	Val	Met	Ser	Ser	Ser	Met	Glu	Ile
			100					105					110		
Cys	Val	Ile	Lys	Val	Glu	Ile	Lys	Asp	Leu	Asn	Asp	Asn	Ala	Pro	Ser
		115					120					125			
Phe	Pro	Ala	Ala	Gln	Ile	Glu	Leu	Glu	Ile	Ser	Glu	Ala	Ala	Ser	Pro
130						135					140				
Gly	Thr	Arg	Ile	Pro	Leu	Asp	Ser	Ala	Tyr	Asp	Pro	Asp	Ser	Gly	Ser
145					150					155					160
Phe	Gly	Val	Gln	Thr	Tyr	Glu	Leu	Thr	Pro	Asn	Glu	Leu	Phe	Gly	Leu
			165						170					175	
Glu	Ile	Lys	Thr	Arg	Gly	Asp	Gly	Ser	Arg	Phe	Ala	Glu	Leu	Val	Val
			180						185					190	
Glu	Lys	Ser	Leu	Asp	Arg	Glu	Thr	Gln	Ser	His	Tyr	Ser	Phe	Arg	Ile
		195					200					205			
Thr	Ala	Leu	Asp	Gly	Gly	Asp	Pro	Pro	Arg	Leu	Gly	Thr	Val	Gly	Leu
		210				215					220				
Ser	Ile	Lys	Val	Thr	Asp	Ser	Asn	Asp	Asn	Asn	Pro	Val	Phe	Ser	Glu
225					230					235					240
Ser	Thr	Tyr	Ala	Val	Ser	Val	Pro	Glu	Asn	Ser	Pro	Pro	Asn	Thr	Pro
			245						250					255	
Val	Ile	Arg	Leu	Asn	Ala	Ser	Asp	Pro	Asp	Glu	Gly	Thr	Asn	Gly	Gln
			260					265						270	
Val	Val	Tyr	Ser	Phe	Tyr	Gly	Tyr	Val	Asn	Asp	Arg	Thr	Arg	Glu	Leu
		275					280					285			
Phe	Gln	Ile	Asp	Pro	His	Ser	Gly	Leu	Val	Thr	Val	Thr	Gly	Ala	Leu
		290				295					300				
Asp	Tyr	Glu	Glu	Gly	His	Val	Tyr	Glu	Leu	Asp	Val	Gln	Ala	Lys	Asp
305					310					315					320
Leu	Gly	Pro	Asn	Ser	Ile	Pro	Ala	His	Cys	Lys	Val	Thr	Val	Ser	Val
			325						330					335	
Leu	Asp	Thr	Asn	Asp	Asn	Pro	Pro	Val	Ile	Asn	Leu	Leu	Ser	Val	Asn
			340					345					350		
Ser	Glu	Leu	Val	Glu	Val	Ser	Glu	Ser	Ala	Pro	Pro	Gly	Tyr	Val	Ile
		355					360					365			
Ala	Leu	Val	Arg	Val	Ser	Asp	Arg	Asp	Ser	Gly	Leu	Asn	Gly	Arg	Val
		370				375					380				
Gln	Cys	Arg	Leu	Leu	Gly	Asn	Val	Pro	Phe	Arg	Leu	Gln	Glu	Tyr	Glu
385					390					395					400
Ser	Phe	Ser	Thr	Ile	Leu	Val	Asp	Gly	Arg	Leu	Asp	Arg	Glu	Gln	His
			405						410					415	
Asp	Gln	Tyr	Asn	Leu	Thr	Ile	Gln	Ala	Arg	Asp	Gly	Gly	Val	Pro	Met
			420					425					430		
Leu	Gln	Ser	Ala	Lys	Ser	Phe	Thr	Val	Leu	Ile	Thr	Asp	Glu	Asn	Asp
		435					440					445			
Asn	His	Pro	His	Phe	Ser	Lys	Pro	Tyr	Tyr	Gln	Val	Ile	Val	Gln	Glu
		450				455					460				
Asn	Asn	Thr	Pro	Gly	Ala	Tyr	Leu	Leu	Ser	Val	Ser	Ala	Arg	Asp	Pro
465					470					475					480
Asp	Leu	Gly	Leu	Asn	Gly	Ser	Val	Ser	Tyr	Gln	Ile	Val	Pro	Ser	Gln
			485						490					495	

Val	Arg	Asp	Met	Pro	Val	Phe	Thr	Tyr	Val	Ser	Ile	Asn	Pro	Asn	Ser	
			500					505					510			
Gly	Asp	Ile	Tyr	Ala	Leu	Arg	Ser	Phe	Asn	His	Glu	Gln	Thr	Lys	Ala	
		515					520					525				
Phe	Glu	Phe	Lys	Val	Leu	Ala	Lys	Asp	Gly	Gly	Leu	Pro	Ser	Leu	Gln	
	530					535					540					
Ser	Asn	Ala	Thr	Val	Arg	Val	Ile	Ile	Leu	Asp	Val	Asn	Asp	Asn	Thr	
545					550					555					560	
Pro	Val	Ile	Thr	Ala	Pro	Pro	Leu	Ile	Asn	Gly	Thr	Ala	Glu	Val	Tyr	
				565					570					575		
Ile	Pro	Arg	Asn	Ser	Gly	Ile	Gly	Tyr	Leu	Val	Thr	Val	Val	Lys	Ala	
			580					585						590		
Glu	Asp	Tyr	Asp	Glu	Gly	Glu	Asn	Gly	Arg	Val	Thr	Tyr	Asp	Met	Thr	
		595					600					605				
Glu	Gly	Asp	Arg	Gly	Phe	Phe	Glu	Ile	Asp	Gln	Val	Asn	Gly	Glu	Val	
	610					615					620					
Arg	Thr	Thr	Arg	Thr	Phe	Gly	Glu	Ser	Ser	Lys	Ser	Ser	Tyr	Glu	Leu	
625					630					635					640	
Ile	Val	Val	Ala	His	Asp	His	Gly	Lys	Thr	Ser	Leu	Ser	Ala	Ser	Ala	
				645					650					655		
Leu	Val	Leu	Ile	Tyr	Leu	Ser	Pro	Ala	Leu	Asp	Ala	Gln	Glu	Ser	Met	
			660					665					670			
Gly	Ser	Val	Asn	Leu	Ser	Leu	Ile	Phe	Ile	Ile	Ala	Leu	Gly	Ser	Ile	
		675					680					685				
Ala	Gly	Ile	Leu	Phe	Val	Thr	Met	Ile	Phe	Val	Ala	Ile	Lys	Cys	Lys	
	690					695					700					
Arg	Asp	Asn	Lys	Glu	Ile	Arg	Thr	Tyr	Asn	Cys	Ser	Asn	Cys	Leu	Thr	
705					710					715					720	
Ile	Thr	Cys	Leu	Leu	Gly	Cys	Phe	Ile	Lys	Gly	Gln	Asn	Ser	Lys	Cys	
				725					730					735		
Leu	His	Cys	Ile	Ser	Val	Ser	Pro	Ile	Ser	Glu	Glu	Gln	Asp	Lys	Lys	
			740					745					750			
Thr	Glu	Glu	Lys	Val	Ser	Leu	Arg	Gly	Lys	Arg	Ile	Ala	Glu	Tyr	Ser	
		755					760					765				
Tyr	Gly	His	Gln	Lys	Lys	Ser	Ser	Lys	Lys	Lys	Lys	Ile	Ser	Lys	Asn	
	770					775						780				
Asp	Ile	Arg	Leu	Val	Pro	Arg	Asp	Val	Glu	Glu	Thr	Asp	Lys	Met	Asn	
785					790					795					800	
Val	Val	Ser	Cys	Ser	Ser	Leu	Thr	Ser	Ser	Leu	Asn	Tyr	Phe	Asp	Tyr	
				805					810					815		
His	Gln	Gln	Thr	Leu	Pro	Leu	Gly	Cys	Arg	Arg	Ser	Glu	Ser	Thr	Phe	
			820					825					830			
Leu	Asn	Val	Glu	Asn	Gln	Asn	Thr	Arg	Asn	Thr	Ser	Ala	Asn	His	Ile	
		835					840					845				
Tyr	His	His	Ser	Phe	Asn	Ser	Gln	Gly	Pro	Gln	Gln	Pro	Asp	Leu	Ile	
	850					855					860					
Ile	Asn	Gly	Val	Pro	Leu	Pro	Glu	Val	Ser	Ala	Ala	Lys	Trp	Leu	Cys	
865					870					875					880	
Glu	Val	Leu	Pro	Gly	Leu	Leu	Leu									
				885												

<210> 34

<211> 855

<212> PRT

<213> Homo sapiens

<400> 34

Met	Glu	Ser	Leu	Leu	Leu	Pro	Val	Leu	Leu	Leu	Leu	Ala	Ile	Leu	Trp
1				5					10					15	
Thr	Gln	Ala	Ala	Ala	Leu	Ile	Asn	Leu	Lys	Tyr	Ser	Val	Glu	Glu	Glu
		20						25					30		
Gln	Arg	Ala	Gly	Thr	Val	Ile	Ala	Asn	Val	Ala	Lys	Asp	Ala	Arg	Glu
		35					40					45			
Ala	Gly	Phe	Ala	Leu	Asp	Pro	Arg	Gln	Ala	Ser	Ala	Phe	Arg	Val	Val
	50					55					60				
Ser	Asn	Ser	Ala	Pro	His	Leu	Val	Asp	Ile	Asn	Pro	Ser	Ser	Gly	Leu
65					70					75					80
Leu	Val	Thr	Lys	Gln	Lys	Ile	Asp	Arg	Asp	Leu	Leu	Cys	Arg	Gln	Ser
			85						90					95	
Pro	Lys	Cys	Ile	Ile	Ser	Leu	Glu	Val	Met	Ser	Ser	Ser	Met	Glu	Ile
			100					105					110		
Cys	Val	Ile	Lys	Val	Glu	Ile	Lys	Asp	Leu	Asn	Asp	Asn	Ala	Pro	Ser
		115					120					125			
Phe	Pro	Ala	Ala	Gln	Ile	Glu	Leu	Glu	Ile	Ser	Glu	Ala	Ala	Ser	Pro
	130					135					140				
Gly	Thr	Arg	Ile	Pro	Leu	Asp	Ser	Ala	Tyr	Asp	Pro	Asp	Ser	Gly	Ser
145					150					155					160
Phe	Gly	Val	Gln	Thr	Tyr	Glu	Leu	Thr	Pro	Asn	Glu	Leu	Phe	Gly	Leu
			165					170						175	
Glu	Ile	Lys	Thr	Arg	Gly	Asp	Gly	Ser	Arg	Phe	Ala	Glu	Leu	Val	Val
			180					185					190		
Glu	Lys	Ser	Leu	Asp	Arg	Glu	Thr	Gln	Ser	His	Tyr	Ser	Phe	Arg	Ile
		195					200					205			
Thr	Ala	Leu	Asp	Gly	Gly	Asp	Pro	Pro	Arg	Leu	Gly	Thr	Val	Gly	Leu
	210					215					220				
Ser	Ile	Lys	Val	Thr	Asp	Ser	Asn	Asp	Asn	Asn	Pro	Val	Phe	Ser	Glu
225					230					235					240
Ser	Thr	Tyr	Ala	Val	Ser	Val	Pro	Glu	Asn	Ser	Pro	Pro	Asn	Thr	Pro
			245						250					255	
Val	Ile	Arg	Leu	Asn	Ala	Ser	Asp	Pro	Asp	Glu	Gly	Thr	Asn	Gly	Gln
			260					265					270		
Val	Val	Tyr	Ser	Phe	Tyr	Gly	Tyr	Val	Asn	Asp	Arg	Thr	Arg	Glu	Leu
		275					280					285			
Phe	Gln	Ile	Asp	Pro	His	Ser	Gly	Leu	Val	Thr	Val	Thr	Gly	Ala	Leu
	290					295					300				
Asp	Tyr	Glu	Glu	Gly	His	Val	Tyr	Glu	Leu	Asp	Val	Gln	Ala	Lys	Asp
305					310					315					320
Leu	Gly	Pro	Asn	Ser	Ile	Pro	Ala	His	Cys	Lys	Val	Thr	Val	Ser	Val
			325						330					335	
Leu	Asp	Thr	Asn	Asp	Asn	Pro	Pro	Val	Ile	Asn	Leu	Leu	Ser	Val	Asn
			340					345					350		
Ser	Glu	Leu	Val	Glu	Val	Ser	Glu	Ser	Ala	Pro	Pro	Gly	Tyr	Val	Ile
		355					360					365			
Ala	Leu	Val	Arg	Val	Ser	Asp	Arg	Asp	Ser	Gly	Leu	Asn	Gly	Arg	Val
	370					375					380				
Gln	Cys	Arg	Leu	Leu	Gly	Asn	Val	Pro	Phe	Arg	Leu	Gln	Glu	Tyr	Glu
385					390					395					400
Ser	Phe	Ser	Thr	Ile	Leu	Val	Asp	Gly	Arg	Leu	Asp	Arg	Glu	Gln	His
			405					410						415	
Asp	Gln	Tyr	Asn	Leu	Thr	Ile	Gln	Ala	Arg	Asp	Gly	Gly	Val	Pro	Met
			420					425					430		
Leu	Gln	Ser	Ala	Lys	Ser	Phe	Thr	Val	Leu	Ile	Thr	Asp	Glu	Asn	Asp
		435					440					445			

Asn	His	Pro	His	Phe	Ser	Lys	Pro	Tyr	Tyr	Gln	Val	Ile	Val	Gln	Glu
	450					455					460				
Asn	Asn	Thr	Pro	Gly	Ala	Tyr	Leu	Leu	Ser	Val	Ser	Ala	Arg	Asp	Pro
465					470					475					480
Asp	Leu	Gly	Leu	Asn	Gly	Ser	Val	Ser	Tyr	Gln	Ile	Val	Pro	Ser	Gln
				485					490					495	
Val	Arg	Asp	Met	Pro	Val	Phe	Thr	Tyr	Val	Ser	Ile	Asn	Pro	Asn	Ser
			500					505					510		
Gly	Asp	Ile	Tyr	Ala	Leu	Arg	Ser	Phe	Asn	His	Glu	Gln	Thr	Lys	Ala
	515						520					525			
Phe	Glu	Phe	Lys	Val	Leu	Ala	Lys	Asp	Gly	Gly	Leu	Pro	Ser	Leu	Gln
	530					535					540				
Ser	Asn	Ala	Thr	Val	Arg	Val	Ile	Ile	Leu	Asp	Val	Asn	Asp	Asn	Thr
545					550					555					560
Pro	Val	Ile	Thr	Ala	Pro	Pro	Leu	Ile	Asn	Gly	Thr	Ala	Glu	Val	Tyr
				565					570					575	
Ile	Pro	Arg	Asn	Ser	Gly	Ile	Gly	Tyr	Leu	Val	Thr	Val	Val	Lys	Ala
			580					585					590		
Glu	Asp	Tyr	Asp	Glu	Gly	Glu	Asn	Gly	Arg	Val	Thr	Tyr	Asp	Met	Thr
	595						600					605			
Glu	Gly	Asp	Arg	Gly	Phe	Phe	Glu	Ile	Asp	Gln	Val	Asn	Gly	Glu	Val
	610					615					620				
Arg	Thr	Thr	Arg	Thr	Phe	Gly	Glu	Ser	Ser	Lys	Ser	Ser	Tyr	Glu	Leu
625					630					635					640
Ile	Val	Val	Ala	His	Asp	His	Gly	Lys	Thr	Ser	Leu	Ser	Ala	Ser	Ala
				645					650					655	
Leu	Val	Leu	Ile	Tyr	Leu	Ser	Pro	Ala	Leu	Asp	Ala	Gln	Glu	Ser	Met
			660					665					670		
Gly	Ser	Val	Asn	Leu	Ser	Leu	Ile	Phe	Ile	Ile	Ala	Leu	Gly	Ser	Ile
		675					680					685			
Ala	Gly	Ile	Leu	Phe	Val	Thr	Met	Ile	Phe	Val	Ala	Ile	Lys	Cys	Lys
	690					695					700				
Arg	Asp	Asn	Lys	Glu	Ile	Arg	Thr	Tyr	Asn	Cys	Arg	Ile	Ala	Glu	Tyr
705					710					715					720
Ser	Tyr	Gly	His	Gln	Lys	Lys	Ser	Ser	Lys	Lys	Lys	Lys	Ile	Ser	Lys
				725					730					735	
Asn	Asp	Ile	Arg	Leu	Val	Pro	Arg	Asp	Val	Glu	Glu	Thr	Asp	Lys	Met
			740					745					750		
Asn	Val	Val	Ser	Cys	Ser	Ser	Leu	Thr	Ser	Ser	Leu	Asn	Tyr	Phe	Asp
		755					760					765			
Tyr	His	Gln	Gln	Thr	Leu	Pro	Leu	Gly	Cys	Arg	Arg	Ser	Glu	Ser	Thr
	770					775					780				
Phe	Leu	Asn	Val	Glu	Asn	Gln	Asn	Thr	Arg	Asn	Thr	Ser	Ala	Asn	His
785					790					795					800
Ile	Tyr	His	His	Ser	Phe	Asn	Ser	Gln	Gly	Pro	Gln	Gln	Pro	Asp	Leu
				805					810					815	
Ile	Ile	Asn	Gly	Val	Pro	Leu	Pro	Glu	Thr	Glu	Asn	Tyr	Ser	Phe	Asp
			820					825					830		
Ser	Asn	Tyr	Val	Asn	Ser	Arg	Ala	His	Leu	Ile	Lys	Arg	Tyr	Val	Gly
		835					840					845			
Leu	Leu	Ala	Tyr	Cys	Cys	Asn									
	850					855									

<210> 35
 <211> 329
 <212> PRT

<213> Homo sapiens

<400> 35

Met	Val	Thr	Lys	Ala	Phe	Val	Leu	Leu	Ala	Ile	Phe	Ala	Glu	Ala	Ser
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Ala	Lys	Ser	Cys	Ala	Pro	Asn	Lys	Ala	Asp	Val	Ile	Leu	Val	Phe	Cys
			20					25					30		
Tyr	Pro	Lys	Thr	Ile	Ile	Thr	Lys	Ile	Pro	Glu	Cys	Pro	Tyr	Gly	Trp
		35					40					45			
Glu	Val	His	Gln	Leu	Ala	Leu	Gly	Gly	Leu	Cys	Tyr	Asn	Gly	Val	His
	50					55					60				
Glu	Gly	Gly	Tyr	Tyr	Gln	Phe	Val	Ile	Pro	Asp	Leu	Ser	Pro	Lys	Asn
65					70					75					80
Lys	Ser	Tyr	Cys	Gly	Thr	Gln	Ser	Glu	Tyr	Lys	Pro	Pro	Ile	Tyr	His
				85					90					95	
Phe	Tyr	Ser	His	Ile	Val	Ser	Asn	Asp	Thr	Thr	Val	Ile	Val	Lys	Asn
			100					105					110		
Gln	Pro	Val	Asn	Tyr	Ser	Phe	Ser	Cys	Thr	Tyr	His	Ser	Thr	Tyr	Leu
		115					120					125			
Val	Asn	Gln	Ala	Ala	Phe	Asp	Gln	Arg	Val	Ala	Thr	Val	His	Val	Lys
	130						135					140			
Asn	Gly	Ser	Met	Gly	Thr	Phe	Glu	Ser	Gln	Leu	Ser	Leu	Asn	Phe	Tyr
145					150					155					160
Thr	Asn	Ala	Lys	Phe	Ser	Ile	Lys	Lys	Glu	Ala	Pro	Phe	Val	Leu	Glu
				165					170					175	
Ala	Ser	Glu	Ile	Gly	Ser	Asp	Leu	Phe	Ala	Gly	Val	Glu	Ala	Lys	Gly
			180					185					190		
Leu	Ser	Ile	Arg	Phe	Lys	Val	Val	Leu	Asn	Ser	Cys	Trp	Ala	Thr	Pro
		195					200					205			
Ser	Ala	Asp	Phe	Met	Tyr	Pro	Leu	Gln	Trp	Gln	Leu	Ile	Asn	Lys	Gly
	210					215					220				
Cys	Pro	Thr	Asp	Glu	Thr	Val	Leu	Val	His	Glu	Asn	Gly	Arg	Asp	His
225					230					235					240
Arg	Ala	Thr	Phe	Gln	Phe	Asn	Ala	Phe	Arg	Phe	Gln	Asn	Ile	Pro	Lys
				245					250					255	
Leu	Ser	Lys	Val	Trp	Leu	His	Cys	Glu	Thr	Phe	Ile	Cys	Asp	Ser	Glu
			260					265					270		
Lys	Leu	Ser	Cys	Pro	Val	Thr	Cys	Asp	Lys	Arg	Lys	Arg	Leu	Leu	Arg
		275					280					285			
Asp	Gln	Thr	Gly	Gly	Val	Leu	Val	Val	Glu	Leu	Ser	Leu	Arg	Ser	Arg
	290					295					300				
Gly	Phe	Ser	Ser	Leu	Tyr	Ser	Phe	Ser	Asp	Val	Leu	His	His	Leu	Ile
305					310					315					320
Met	Met	Leu	Gly	Ile	Cys	Ala	Val	Leu							
				325											

<210> 36

<211> 232

<212> PRT

<213> Homo sapiens

<400> 36

Met	Leu	Tyr	Thr	Arg	Lys	Asn	Leu	Thr	Cys	Ala	Gln	Thr	Ile	Asn	Ser
1				5					10					15	
Ser	Ala	Phe	Gly	Asn	Leu	Asn	Val	Thr	Lys	Lys	Thr	Thr	Phe	Ile	Val
			20					25					30		

His	Gly	Phe	Arg	Pro	Thr	Gly	Ser	Pro	Pro	Val	Trp	Met	Asp	Asp	Leu
		35					40					45			
Val	Lys	Gly	Leu	Leu	Ser	Val	Glu	Asp	Met	Asn	Val	Val	Val	Val	Asp
	50					55					60				
Trp	Asn	Arg	Gly	Ala	Thr	Thr	Leu	Ile	Tyr	Thr	His	Ala	Ser	Ser	Lys
65					70				75						80
Thr	Arg	Lys	Val	Ala	Met	Val	Leu	Lys	Glu	Phe	Ile	Asp	Gln	Met	Leu
				85					90					95	
Ala	Glu	Gly	Ala	Ser	Leu	Asp	Asp	Ile	Tyr	Met	Ile	Gly	Val	Ser	Leu
			100					105					110		
Gly	Ala	His	Ile	Ser	Gly	Phe	Val	Gly	Glu	Met	Tyr	Asp	Gly	Trp	Leu
		115					120					125			
Gly	Arg	Ile	Thr	Gly	Leu	Asp	Pro	Ala	Gly	Pro	Leu	Phe	Asn	Gly	Lys
	130					135					140				
Pro	His	Gln	Asp	Arg	Leu	Asp	Pro	Ser	Asp	Ala	Gln	Phe	Val	Asp	Val
145					150					155					160
Ile	His	Ser	Asp	Thr	Asp	Gly	Asn	Ala	Pro	Phe	Leu	Val	Ala	Leu	Gly
				165					170					175	
Tyr	Lys	Glu	Pro	Leu	Gly	Asn	Ile	Asp	Phe	Tyr	Pro	Asn	Gly	Gly	Leu
			180					185					190		
Asp	Gln	Pro	Gly	Cys	Pro	Lys	Thr	Ile	Leu	Gly	Gly	Asn	Val	Lys	Glu
		195					200					205			
Met	Ile	Gln	Ala	Ser	Tyr	Ile	Phe	Phe	Leu	Lys	Asn	Asp	Ser	Met	Asp
	210					215					220				
Leu	Ser	Ser	Pro	Lys	Glu	Val	Glu								
225					230										

<210> 37

<211> 452

<212> PRT

<213> Homo sapiens

<400> 37

Met	Leu	Arg	Phe	Tyr	Leu	Phe	Ile	Ser	Leu	Leu	Cys	Leu	Ser	Arg	Ser
1				5					10					15	
Asp	Ala	Glu	Glu	Thr	Cys	Pro	Ser	Phe	Thr	Arg	Leu	Ser	Phe	His	Ser
			20					25					30		
Ala	Val	Val	Gly	Thr	Gly	Leu	Asn	Val	Arg	Leu	Met	Leu	Tyr	Thr	Arg
		35					40					45			
Lys	Asn	Leu	Thr	Cys	Ala	Gln	Thr	Ile	Asn	Ser	Ser	Ala	Phe	Gly	Asn
	50					55					60				
Leu	Asn	Val	Thr	Lys	Lys	Thr	Thr	Phe	Ile	Val	His	Gly	Phe	Arg	Pro
65					70				75						80
Thr	Gly	Ser	Pro	Pro	Val	Trp	Met	Asp	Asp	Leu	Val	Lys	Gly	Leu	Leu
				85					90					95	
Ser	Val	Glu	Asp	Met	Asn	Val	Val	Val	Val	Asp	Trp	Asn	Arg	Gly	Ala
			100					105					110		
Thr	Thr	Leu	Ile	Tyr	Thr	His	Ala	Ser	Ser	Lys	Thr	Arg	Lys	Val	Ala
		115					120					125			
Met	Val	Leu	Lys	Glu	Phe	Ile	Asp	Gln	Met	Leu	Ala	Glu	Gly	Ala	Ser
	130					135					140				
Leu	Asp	Asp	Ile	Tyr	Met	Ile	Gly	Val	Ser	Leu	Gly	Ala	His	Ile	Ser
145					150					155					160
Gly	Phe	Val	Gly	Glu	Met	Tyr	Asp	Gly	Trp	Leu	Gly	Arg	Ile	Thr	Gly
				165					170					175	

Leu	Asp	Pro	Ala	Gly	Pro	Leu	Phe	Asn	Gly	Lys	Pro	His	Gln	Asp	Arg
			180					185					190		
Leu	Asp	Pro	Ser	Asp	Ala	Gln	Phe	Val	Asp	Val	Ile	His	Ser	Asp	Thr
		195					200					205			
Asp	Ala	Leu	Gly	Tyr	Lys	Glu	Pro	Leu	Gly	Asn	Ile	Asp	Phe	Tyr	Pro
		210				215					220				
Asn	Gly	Gly	Leu	Asp	Gln	Pro	Gly	Cys	Pro	Lys	Thr	Ile	Leu	Gly	Gly
225					230					235					240
Phe	Gln	Tyr	Phe	Lys	Cys	Asp	His	Gln	Arg	Ser	Val	Tyr	Leu	Tyr	Leu
				245					250					255	
Ser	Ser	Leu	Arg	Glu	Ser	Cys	Thr	Ile	Thr	Ala	Tyr	Pro	Cys	Asp	Ser
			260					265					270		
Tyr	Gln	Asp	Tyr	Arg	Asn	Gly	Lys	Cys	Val	Ser	Cys	Gly	Thr	Ser	Gln
		275					280					285			
Lys	Glu	Ser	Cys	Pro	Leu	Leu	Gly	Tyr	Tyr	Ala	Asp	Asn	Trp	Lys	Asp
	290					295					300				
His	Leu	Arg	Gly	Lys	Asp	Pro	Pro	Met	Thr	Lys	Ala	Phe	Phe	Asp	Thr
305					310					315					320
Ala	Glu	Glu	Ser	Pro	Phe	Cys	Met	Tyr	His	Tyr	Phe	Val	Asp	Ile	Ile
				325					330					335	
Thr	Trp	Asp	Lys	Asn	Val	Arg	Arg	Gly	Asp	Ile	Thr	Ile	Lys	Leu	Arg
			340					345					350		
Asp	Lys	Ala	Gly	Asn	Thr	His	Arg	Ser	Lys	Ile	Ile	Ser	Asn	Glu	Pro
		355					360					365			
Thr	Thr	Phe	Gln	Lys	Tyr	His	Gln	Val	Ser	Leu	Leu	Ala	Arg	Phe	Asn
	370					375					380				
Gln	Asp	Leu	Asp	Lys	Val	Ala	Ala	Ile	Ser	Leu	Met	Phe	Ser	Thr	Gly
385					390					395					400
Ser	Leu	Ile	Gly	Pro	Arg	Tyr	Lys	Leu	Arg	Ile	Leu	Arg	Met	Lys	Leu
				405					410					415	
Arg	Ser	Leu	Ala	His	Pro	Glu	Arg	Pro	Gln	Leu	Cys	Arg	Tyr	Asp	Leu
			420					425					430		
Val	Leu	Met	Glu	Asn	Val	Glu	Thr	Val	Phe	Gln	Pro	Ile	Leu	Cys	Pro
		435					440					445			
Glu	Leu	Gln	Leu												
			450												

<210> 38
 <211> 450
 <212> PRT
 <213> Homo sapiens

<400> 38

Met	Gly	Leu	Arg	Ser	His	His	Leu	Ser	Leu	Gly	Leu	Leu	Leu	Leu	Phe
1				5					10					15	
Leu	Leu	Pro	Ala	Glu	Cys	Leu	Gly	Ala	Glu	Gly	Arg	Leu	Ala	Leu	Lys
			20					25					30		
Leu	Phe	Arg	Asp	Leu	Phe	Ala	Asn	Tyr	Thr	Ser	Ala	Leu	Arg	Pro	Val
		35					40					45			
Ala	Asp	Thr	Asp	Gln	Thr	Leu	Asn	Val	Thr	Leu	Glu	Val	Thr	Leu	Ser
		50				55					60				
Gln	Ile	Ile	Asp	Met	Asp	Glu	Arg	Asn	Gln	Val	Leu	Thr	Leu	Tyr	Leu
65					70					75					80
Trp	Ile	Arg	Gln	Glu	Trp	Thr	Asp	Ala	Tyr	Leu	Arg	Trp	Asp	Pro	Asn
				85					90					95	

Ala	Tyr	Gly	Gly	Leu	Asp	Ala	Ile	Arg	Ile	Pro	Ser	Ser	Leu	Val	Trp
			100					105					110		
Arg	Pro	Asp	Ile	Val	Leu	Tyr	Asn	Lys	Ala	Asp	Ala	Gln	Pro	Pro	Gly
		115					120					125			
Ser	Ala	Ser	Thr	Asn	Val	Val	Leu	Arg	His	Asp	Gly	Ala	Val	Arg	Trp
	130						135				140				
Asp	Ala	Pro	Ala	Ile	Thr	Arg	Ser	Ser	Cys	Arg	Val	Asp	Val	Ala	Ala
145					150					155					160
Phe	Pro	Phe	Asp	Ala	Gln	His	Cys	Gly	Leu	Thr	Phe	Gly	Ser	Trp	Thr
			165						170					175	
His	Gly	Gly	His	Gln	Leu	Asp	Val	Arg	Pro	Arg	Gly	Ala	Ala	Ala	Ser
		180						185					190		
Leu	Ala	Asp	Phe	Val	Glu	Asn	Val	Glu	Trp	Arg	Val	Leu	Gly	Met	Pro
		195					200					205			
Ala	Arg	Arg	Arg	Val	Leu	Thr	Tyr	Gly	Cys	Cys	Ser	Glu	Pro	Tyr	Pro
	210					215					220				
Asp	Val	Thr	Phe	Thr	Leu	Leu	Leu	Arg	Arg	Arg	Ala	Ala	Ala	Tyr	Val
225					230				235						240
Cys	Asn	Leu	Leu	Leu	Pro	Cys	Val	Leu	Ile	Ser	Leu	Leu	Ala	Pro	Leu
			245						250					255	
Ala	Phe	His	Leu	Pro	Ala	Asp	Ser	Gly	Glu	Lys	Val	Ser	Leu	Gly	Val
			260					265					270		
Thr	Val	Leu	Leu	Ala	Leu	Thr	Val	Phe	Gln	Leu	Leu	Leu	Ala	Glu	Ser
		275					280					285			
Met	Pro	Pro	Ala	Glu	Ser	Val	Pro	Leu	Ile	Gly	Lys	Tyr	Tyr	Met	Ala
	290					295					300				
Thr	Met	Thr	Met	Val	Thr	Phe	Ser	Thr	Ala	Leu	Thr	Ile	Leu	Ile	Met
305					310					315					320
Asn	Leu	His	Tyr	Cys	Gly	Pro	Ser	Val	Arg	Pro	Val	Pro	Ala	Trp	Ala
			325						330					335	
Arg	Ala	Leu	Leu	Leu	Gly	His	Leu	Ala	Arg	Gly	Leu	Cys	Val	Arg	Glu
			340					345					350		
Arg	Gly	Glu	Pro	Cys	Gly	Gln	Ser	Arg	Pro	Pro	Glu	Leu	Ser	Pro	Ser
		355					360					365			
Pro	Gln	Ser	Pro	Glu	Gly	Gly	Ala	Gly	Pro	Pro	Ala	Gly	Pro	Cys	His
	370					375					380				
Glu	Pro	Arg	Cys	Leu	Cys	Arg	Gln	Glu	Ala	Leu	Leu	His	His	Val	Ala
385					390					395					400
Thr	Ile	Ala	Asn	Thr	Phe	Arg	Ser	His	Arg	Ala	Ala	Gln	Arg	Cys	His
			405						410					415	
Glu	Asp	Trp	Lys	Arg	Leu	Ala	Arg	Val	Met	Asp	Arg	Phe	Phe	Leu	Ala
		420						425					430		
Ile	Phe	Phe	Ser	Met	Ala	Leu	Val	Met	Ser	Leu	Leu	Val	Leu	Val	Gln
		435					440					445			
Ala	Leu														
	450														

<210> 39
 <211> 255
 <212> PRT
 <213> Homo sapiens

<400> 39
 Met Val Lys Gly Glu Lys Lys Gly Pro Lys Gly Lys Lys Ile Thr Leu Lys
 1 5 10 15

Val	Ala	Arg	Asn	Cys	Ile	Lys	Ile	Thr	Phe	Asp	Gly	Lys	Lys	Arg	Leu
			20					25					30		
Asp	Leu	Ser	Lys	Met	Gly	Ile	Thr	Thr	Phe	Pro	Lys	Cys	Ile	Leu	Arg
		35				40						45			
Leu	Ser	Asp	Met	Asp	Glu	Leu	Asp	Leu	Ser	Arg	Asn	Leu	Ile	Arg	Lys
		50				55					60				
Ile	Pro	Asp	Ser	Ile	Ser	Lys	Phe	Gln	Asn	Leu	Arg	Trp	Leu	Asp	Leu
65					70				75					80	
His	Ser	Asn	Tyr	Ile	Asp	Lys	Leu	Pro	Glu	Ser	Ile	Gly	Gln	Met	Thr
			85						90					95	
Ser	Leu	Leu	Tyr	Leu	Asn	Val	Ser	Asn	Asn	Arg	Leu	Thr	Ser	Asn	Gly
			100					105					110		
Leu	Pro	Val	Glu	Leu	Lys	Gln	Leu	Lys	Asn	Ile	Arg	Ala	Val	Asn	Leu
		115					120					125			
Gly	Leu	Asn	His	Leu	Asp	Ser	Val	Pro	Thr	Thr	Leu	Gly	Ala	Leu	Lys
		130				135					140				
Glu	Leu	His	Glu	Val	Gly	Leu	His	Asp	Asn	Leu	Leu	Asn	Asn	Ile	Pro
145					150				155					160	
Val	Ser	Ile	Ser	Lys	Leu	Pro	Lys	Leu	Lys	Lys	Leu	Asn	Ile	Lys	Arg
				165					170					175	
Asn	Pro	Phe	Pro	Lys	Pro	Gly	Glu	Ser	Glu	Ile	Phe	Ile	Asp	Ser	Ile
			180					185					190		
Arg	Arg	Leu	Glu	Asn	Leu	Tyr	Val	Val	Glu	Glu	Lys	Asp	Leu	Cys	Ala
		195					200					205			
Ala	Cys	Leu	Arg	Lys	Cys	Gln	Asn	Ala	Arg	Asp	Asn	Leu	Asn	Arg	Ile
	210					215					220				
Lys	Asn	Met	Ala	Thr	Thr	Thr	Pro	Arg	Lys	Thr	Ile	Phe	Pro	Asn	Leu
225					230					235					240
Ile	Ser	Pro	Asn	Ser	Met	Ala	Lys	Asp	Ser	Trp	Glu	Asp	Trp	Arg	
			245						250					255	

<210> 40
 <211> 214
 <212> PRT
 <213> Homo sapiens

<400> 40															
Met	Gln	Ala	Gly	Thr	Gln	Ser	Thr	His	Glu	Ser	Leu	Lys	Pro	Gln	Arg
1				5					10					15	
Val	Gln	Phe	Gln	Ser	Arg	Asn	Phe	His	Asn	Ile	Leu	Gln	Trp	Gln	Pro
			20					25					30		
Gly	Arg	Ala	Leu	Thr	Gly	Asn	Ser	Val	Tyr	Phe	Val	Gln	Tyr	Lys	
		35				40					45				
Ile	Tyr	Gly	Gln	Arg	Gln	Trp	Lys	Asn	Lys	Glu	Asp	Cys	Trp	Gly	Thr
	50					55					60				
Gln	Glu	Leu	Ser	Cys	Asp	Leu	Thr	Ser	Glu	Thr	Ser	Asp	Ile	Gln	Glu
65					70				75					80	
Pro	Tyr	Tyr	Gly	Arg	Val	Arg	Ala	Ala	Ser	Ala	Gly	Ser	Tyr	Ser	Glu
				85					90					95	
Trp	Ser	Met	Thr	Pro	Arg	Phe	Thr	Pro	Trp	Trp	Glu	Thr	Lys	Ile	Asp
			100					105					110		
Pro	Pro	Val	Met	Asn	Ile	Thr	Gln	Val	Asn	Gly	Ser	Leu	Leu	Val	Ile
		115					120					125			
Leu	His	Ala	Pro	Asn	Leu	Pro	Tyr	Arg	Tyr	Gln	Lys	Glu	Lys	Asn	Val
	130					135					140				

Ser	Ile	Glu	Asp	Tyr	Tyr	Glu	Leu	Leu	Tyr	Arg	Val	Phe	Ile	Ile	Asn
145					150					155					160
Asn	Ser	Leu	Glu	Lys	Glu	Gln	Lys	Val	Tyr	Glu	Gly	Ala	His	Arg	Ala
				165					170					175	
Val	Glu	Ile	Glu	Ala	Leu	Thr	Pro	His	Ser	Ser	Tyr	Cys	Val	Val	Ala
			180					185					190		
Glu	Ile	Tyr	Gln	Pro	Met	Leu	Asp	Arg	Arg	Ser	Gln	Arg	Ser	Glu	Glu
		195					200					205			
Arg	Cys	Val	Glu	Ile	Pro										
	210														

<210> 41
 <211> 231
 <212> PRT
 <213> Homo sapiens

Met	Met	Pro	Lys	His	Cys	Phe	Leu	Gly	Phe	Leu	Ile	Ser	Phe	Phe	Leu
1				5					10					15	
Thr	Gly	Val	Ala	Gly	Thr	Gln	Ser	Thr	His	Glu	Ser	Leu	Lys	Pro	Gln
			20					25					30		
Arg	Val	Gln	Phe	Gln	Ser	Arg	Asn	Phe	His	Asn	Ile	Leu	Gln	Trp	Gln
		35					40					45			
Pro	Gly	Arg	Ala	Leu	Thr	Gly	Asn	Ser	Ser	Val	Tyr	Phe	Val	Gln	Tyr
	50					55					60				
Lys	Ile	Tyr	Gly	Gln	Arg	Gln	Trp	Lys	Asn	Lys	Glu	Asp	Cys	Trp	Gly
65				70					75					80	
Thr	Gln	Glu	Leu	Ser	Cys	Asp	Leu	Thr	Ser	Glu	Thr	Ser	Asp	Ile	Gln
				85					90					95	
Glu	Pro	Tyr	Tyr	Gly	Arg	Val	Arg	Ala	Ala	Ser	Ala	Gly	Ser	Tyr	Ser
			100					105					110		
Glu	Trp	Ser	Met	Thr	Pro	Arg	Phe	Thr	Pro	Trp	Trp	Glu	Thr	Lys	Ile
		115					120					125			
Asp	Pro	Pro	Val	Met	Asn	Ile	Thr	Gln	Val	Asn	Gly	Ser	Leu	Leu	Val
	130					135					140				
Ile	Leu	His	Ala	Pro	Asn	Leu	Pro	Tyr	Arg	Tyr	Gln	Lys	Glu	Lys	Asn
145					150					155					160
Val	Ser	Ile	Glu	Asp	Tyr	Tyr	Glu	Leu	Leu	Tyr	Arg	Val	Phe	Ile	Ile
				165					170					175	
Asn	Asn	Ser	Leu	Glu	Lys	Glu	Gln	Lys	Val	Tyr	Glu	Gly	Ala	His	Arg
			180					185					190		
Ala	Val	Glu	Ile	Glu	Ala	Leu	Thr	Pro	His	Ser	Ser	Tyr	Cys	Val	Val
		195					200					205			
Ala	Glu	Ile	Tyr	Gln	Pro	Met	Leu	Asp	Arg	Arg	Ser	Gln	Arg	Ser	Glu
	210					215					220				
Glu	Arg	Cys	Val	Glu	Ile	Pro									
225						230									

<210> 42
 <211> 263
 <212> PRT
 <213> Homo sapiens

<400> 42

Met	Met	Pro	Lys	His	Cys	Phe	Leu	Gly	Phe	Leu	Ile	Ser	Phe	Phe	Leu
1				5					10					15	
Thr	Gly	Val	Ala	Gly	Thr	Gln	Ser	Thr	His	Glu	Ser	Leu	Lys	Pro	Gln
			20					25					30		
Arg	Val	Gln	Phe	Gln	Ser	Arg	Asn	Phe	His	Asn	Ile	Leu	Gln	Trp	Gln
		35					40					45			
Pro	Gly	Arg	Ala	Leu	Thr	Gly	Asn	Ser	Ser	Val	Tyr	Phe	Val	Gln	Tyr
	50					55					60				
Lys	Ile	Met	Phe	Ser	Cys	Ser	Met	Lys	Ser	Ser	His	Gln	Lys	Pro	Ser
65					70					75				80	
Gly	Cys	Trp	Gln	His	Ile	Ser	Cys	Asn	Phe	Pro	Gly	Cys	Arg	Thr	Leu
				85					90					95	
Ala	Lys	Tyr	Gly	Gln	Arg	Gln	Trp	Lys	Asn	Lys	Glu	Asp	Cys	Trp	Gly
			100					105					110		
Thr	Gln	Glu	Leu	Ser	Cys	Asp	Leu	Thr	Ser	Glu	Thr	Ser	Asp	Ile	Gln
		115					120					125			
Glu	Pro	Tyr	Tyr	Gly	Arg	Val	Arg	Ala	Ala	Ser	Ala	Gly	Ser	Tyr	Ser
	130					135					140				
Glu	Trp	Ser	Met	Thr	Pro	Arg	Phe	Thr	Pro	Trp	Trp	Glu	Thr	Lys	Ile
145					150					155				160	
Asp	Pro	Pro	Val	Met	Asn	Ile	Thr	Gln	Val	Asn	Gly	Ser	Leu	Leu	Val
			165						170					175	
Ile	Leu	His	Ala	Pro	Asn	Leu	Pro	Tyr	Arg	Tyr	Gln	Lys	Glu	Lys	Asn
			180					185					190		
Val	Ser	Ile	Glu	Asp	Tyr	Tyr	Glu	Leu	Leu	Tyr	Arg	Val	Phe	Ile	Ile
		195					200					205			
Asn	Asn	Ser	Leu	Glu	Lys	Glu	Gln	Lys	Val	Tyr	Glu	Gly	Ala	His	Arg
	210					215					220				
Ala	Val	Glu	Ile	Glu	Ala	Leu	Thr	Pro	His	Ser	Ser	Tyr	Cys	Val	Val
225					230					235					240
Ala	Glu	Ile	Tyr	Gln	Pro	Met	Leu	Asp	Arg	Arg	Ser	Gln	Arg	Ser	Glu
				245					250					255	
Glu	Arg	Cys	Val	Glu	Ile	Pro									
			260												

<210> 43

<211> 259

<212> PRT

<213> Homo sapiens

<400> 43

Met	Tyr	Val	Leu	Ser	Pro	Val	Glu	Phe	Ile	Ile	Leu	Gln	Leu	Leu	Phe
1				5					10					15	
Ile	Gln	Ala	Ile	Ser	Ser	Ser	Leu	Lys	Gly	Phe	Leu	Ser	Ala	Met	Arg
		20						25					30		
Leu	Ala	His	Arg	Gly	Cys	Asn	Val	Asp	Thr	Pro	Val	Ser	Thr	Leu	Thr
		35					40					45			
Pro	Val	Lys	Thr	Ser	Glu	Phe	Glu	Asn	Phe	Lys	Thr	Lys	Met	Val	Ile
	50					55					60				
Thr	Ser	Lys	Lys	Asp	Tyr	Pro	Leu	Ser	Lys	Asn	Phe	Pro	Tyr	Ser	Leu
65					70					75				80	
Glu	His	Leu	Gln	Thr	Ser	Tyr	Cys	Gly	Leu	Val	Arg	Val	Asp	Met	Arg
				85					90					95	
Met	Leu	Cys	Leu	Lys	Ser	Leu	Arg	Lys	Leu	Asp	Leu	Ser	His	Asn	His
			100					105					110		

Ile	Lys	Lys	Leu	Pro	Ala	Thr	Ile	Gly	Asp	Leu	Ile	His	Leu	Gln	Glu
		115						120				125			
Leu	Asn	Leu	Asn	Asp	Asn	His	Leu	Glu	Ser	Phe	Ser	Val	Ala	Leu	Cys
	130					135					140				
His	Ser	Thr	Leu	Gln	Lys	Ser	Leu	Arg	Ser	Leu	Asp	Leu	Ser	Lys	Asn
145					150					155					160
Lys	Ile	Lys	Ala	Leu	Pro	Val	Gln	Phe	Cys	Gln	Leu	Gln	Glu	Leu	Lys
			165						170					175	
Asn	Leu	Lys	Leu	Asp	Asp	Asn	Glu	Leu	Ile	Gln	Phe	Pro	Cys	Lys	Ile
			180					185					190		
Gly	Gln	Leu	Ile	Asn	Leu	Arg	Phe	Leu	Ser	Ala	Ala	Arg	Asn	Lys	Leu
	195						200					205			
Pro	Phe	Leu	Pro	Ser	Glu	Phe	Arg	Asn	Leu	Ser	Leu	Glu	Tyr	Leu	Asp
	210					215					220				
Leu	Phe	Gly	Asn	Thr	Phe	Glu	Gln	Pro	Lys	Val	Leu	Pro	Val	Ile	Lys
225					230					235					240
Leu	Gln	Ala	Pro	Leu	Thr	Leu	Leu	Glu	Ser	Ser	Ala	Arg	Thr	Ile	Leu
				245					250					255	
His	Asn	Arg													

<210> 44
 <211> 416
 <212> PRT
 <213> Homo sapiens

<400> 44

Met	Lys	Leu	His	Cys	Glu	Val	Glu	Val	Ile	Ser	Arg	His	Leu	Pro	Ala
1				5					10					15	
Leu	Gly	Leu	Arg	Asn	Arg	Gly	Lys	Gly	Val	Arg	Ala	Val	Leu	Ser	Leu
			20					25					30		
Cys	Gln	Gln	Thr	Ser	Arg	Ser	Gln	Pro	Pro	Val	Arg	Ala	Phe	Leu	Leu
	35						40					45			
Ile	Ser	Thr	Leu	Lys	Asp	Lys	Arg	Gly	Thr	Arg	Tyr	Glu	Leu	Arg	Glu
	50					55					60				
Asn	Ile	Glu	Gln	Phe	Phe	Thr	Lys	Phe	Val	Asp	Glu	Gly	Lys	Ala	Thr
65					70					75					80
Val	Arg	Leu	Lys	Glu	Pro	Pro	Val	Asp	Ile	Cys	Leu	Ser	Lys	Ala	Ile
			85					90						95	
Ser	Ser	Ser	Leu	Lys	Gly	Phe	Leu	Ser	Ala	Met	Arg	Leu	Ala	His	Arg
			100					105					110		
Gly	Cys	Asn	Val	Asp	Thr	Pro	Val	Ser	Thr	Leu	Thr	Pro	Val	Lys	Thr
		115					120					125			
Ser	Glu	Phe	Glu	Asn	Phe	Lys	Thr	Lys	Met	Val	Ile	Thr	Ser	Lys	Lys
	130					135					140				
Asp	Tyr	Pro	Leu	Ser	Lys	Asn	Phe	Pro	Tyr	Ser	Leu	Glu	His	Leu	Gln
145					150					155					160
Thr	Ser	Tyr	Cys	Gly	Leu	Val	Arg	Val	Asp	Met	Arg	Met	Leu	Cys	Leu
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Lys	Ser	Leu	Arg	Lys	Leu	Asp	Leu	Ser	His	Asn	His	Ile	Lys	Lys	Leu
			180					185					190		
Pro	Ala	Thr	Ile	Gly	Asp	Leu	Ile	His	Leu	Gln	Glu	Leu	Asn	Leu	Asn
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Asp	Asn	His	Leu	Glu	Ser	Phe	Ser	Val	Ala	Leu	Cys	His	Ser	Thr	Leu
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Gln	Lys	Ser	Leu	Arg	Ser	Leu	Asp	Leu	Ser	Lys	Asn	Lys	Ile	Lys	Ala
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Asp	Asp	Asn	Glu	Leu	Ile	Gln	Phe	Pro	Cys	Lys	Ile	Gly	Gln	Leu	Ile
			260					265					270		
Asn	Leu	Arg	Phe	Leu	Ser	Ala	Ala	Arg	Asn	Lys	Leu	Pro	Phe	Leu	Pro
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Ser	Glu	Phe	Arg	Asn	Leu	Ser	Leu	Glu	Tyr	Leu	Asp	Leu	Phe	Gly	Asn
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305					310					315					320
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Arg	Ile	Pro	Tyr	Gly	Ser	His	Ile	Ile	Pro	Phe	His	Leu	Cys	Gln	Asp
			340					345					350		
Leu	Asp	Thr	Ala	Lys	Ile	Cys	Val	Cys	Gly	Arg	Phe	Cys	Leu	Asn	Ser
		355				360					365				
Phe	Ile	Gln	Gly	Thr	Thr	Thr	Met	Asn	Leu	His	Ser	Val	Ala	His	Thr
	370					375					380				
Val	Val	Leu	Val	Asp	Asn	Leu	Gly	Gly	Thr	Glu	Ala	Pro	Ile	Ile	Ser
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 <212> DNA
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<400> 45

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Tyr	Pro	Lys 35	Thr	Ile	Ile	Thr	Lys 40	Ile	Pro	Glu	Cys	Pro 45	Tyr	Gly	Trp
Glu	Val 50	His	Gln	Leu	Ala	Leu 55	Gly	Gly	Leu	Cys	Tyr 60	Asn	Gly	Val	His
Glu 65	Gly	Gly	Tyr	Tyr	Gln 70	Phe	Val	Ile	Pro	Asp 75	Leu	Ser	Pro	Lys	Asn 80
Lys	Ser	Tyr	Cys	Gly 85	Thr	Gln	Ser	Glu	Tyr 90	Lys	Pro	Pro	Ile	Tyr 95	His
Phe	Tyr	Ser	His 100	Ile	Val	Ser	Asn	Asp 105	Ser	Thr	Val	Ile	Val 110	Lys	Asn
Gln	Pro	Val 115	Asn	Tyr	Ser	Phe	Ser 120	Cys	Thr	Tyr	His	Ser 125	Thr	Tyr	Leu
Val	Asn 130	Gln	Ala	Ala	Phe	Asp 135	Gln	Arg	Val	Ala	Thr 140	Val	His	Val	Lys
Asn 145	Gly	Ser	Met	Gly	Thr 150	Phe	Glu	Ser	Gln	Leu 155	Ser	Leu	Asn	Phe	Tyr 160
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Ser	Ala 210	Asp	Phe	Met	Tyr	Pro 215	Leu	Gln	Trp	Gln	Leu 220	Ile	Asn	Lys	Gly
Cys 225	Pro	Thr	Asp	Glu	Thr 230	Val	Leu	Val	His	Glu 235	Asn	Gly	Lys	Asp	His 240
Arg	Ala	Thr	Phe 245	Gln	Phe	Asn	Ala	Phe	Arg 250	Phe	Gln	Asn	Ile	Pro 255	Lys
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Lys	Leu	Ser 275	Cys	Pro	Val	Asn	Cys 280	Asp	Lys	Arg	Lys	Arg 285	Met	Leu	Arg
Asp	Gln 290	Thr	Gly	Gly	Val	Leu 295	Val	Val	Glu	Leu	Ser 300	Leu	Arg	Ser	Arg
Ala 305	Phe	Ser	Gly	Leu	Cys 310	Asp	Phe	Ser	Asp	Val 315	Leu	Leu	His	Leu	Ile 320
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